

REMARKS

Claims 1-49 are pending in this application. Claims 22-49 were previously withdrawn as a result of Applicants' election with traverse. Thus, claims 1-21 have been examined on the merits. Claims 1-21 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. Specifically, the Office Action asserts that the claims are indefinite because: (1) it appears the configuration where a crystalline particle comprising metal and oxygen moieties has an inner organic binding group attached to at least one metal moiety and an outer organic binding group attached to at least one inner organic binding group is sterically impossible; and (2) the subscript "c" in the formula recited in claim 14 has no defined value or range. For the following reasons, Applicants respectfully traverse each of these assertions.

Applicants respectfully disagree with the assertion that the claimed configuration is sterically impossible. During preparation of the soluble metal oxides, acetic acid coordinates with the hydrous metal oxide to give rise to surface bound unidentate and bidentate acetates. The bound acetate molecules have oxygen sites available for hydrogen bonding, and acetic acid can form hydrogen bonds with these more tightly bound groups. In particular, acetic acid can form hydrogen bonds with the unidentate acetate groups thus creating what is termed the "outer layer". Thus, the inner and outer layer arrangement described in the present application is not only sterically possible, but actually physically present.

Moreover, Applicants submit that there is concrete experimental data provided in the patent application, in the form of infrared and TGA/DSC data, to show that there are organic groups bound directly to the metal as well as organic groups bound to the metal-bound organic groups. In the specification these are distinguished as the "inner" and "outer" organic layers around the soluble metal oxide. Infrared studies conclusively show that there are acetate groups bound to the surface in many different modes, such as, for instance, unidentate acetate, bidentate acetate, and bidentate chelated acetate. These types of tightly bound acetate comprise the "inner layer." In addition, the infrared data supplied show the presence of hydrogen-bonded acetate, and this type of acetate would comprise the "outer layer." In particular, the Examiner is directed to Figure 9 as well as page 32, line 20 through page 33, line 30 of the application as filed.

Furthermore, the TGA/DSC data accompanying the infrared studies clearly shows the existence of inner and outer acetate layers. In particular, this is shown in Figure 8 and

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discussed in the specification as filed beginning at page 31, line 30. The TGA/DSC data in conjunction with the variable temperature infrared studies (Figure 9) unequivocally depict the stepwise removal of an outer hydrogen bonded acetate layer and an inner acetate layer coordinated to the metal oxide.

Thus, it is respectfully submitted that the assertion in the Office Action that the claimed configuration is sterically impossible is incorrect. Accordingly, it is requested that the rejection of claims 1-21 under 35 U.S.C. 112, second paragraph be reconsidered and withdrawn.

With respect to claim 14, the Office Action asserts that the claim is indefinite because the subscript "c" has no defined value or range. While Applicants believe the skilled artisan would understand what is meant by the subscript "c," even absent an express definition, claim 14 has now been amended to address this issue. Specifically, claim 14 has been amended to expressly state that the subscript "c," like subscripts p, q, r and s, represents a variable dependent in particular on the number of metal oxides in the crystallite particle (n), and reaction conditions. The specification has also been similarly amended at page 11, lines 16-17. It is believed this amendment is sufficient to overcome the rejection under 35 U.S.C. 112, second paragraph.

Applicants respectfully request that this amendment be entered as it does not constitute new matter. All of the moieties referred to in the formula of claim 14 are subscripted with a lower case letter, and in each case the subscripted letter refers to a variable number. This is immediately evident from the accompanying text in which the subscripts m, n, p, q, r, and s are described as variables. Moreover, Applicants wish to stress that the term M' is described in the accompanying text as a metal ion. It is unequivocal that this is a dopant metal ion and any person ordinarily skilled in the art of doped metal oxides would immediately know that the level of dopant metal ion may be varied by varying reaction conditions. Thus, the skilled person would automatically identify the subscript "c" as a variable integer.

Additionally, to the extent a definition of "c" is required, Applicants' failure to include a definition is an obvious error. Amendments made to correct an obvious error do not constitute new matter where one skilled in the art would not only recognize the existence of the error, but also the appropriate correction. *In re Odd*, 443 F.2d 1200, 170 USPQ 268 (CCPA 1971); *see also* M.P.E.P. §2163.07. From a review of the claims and the specification, the

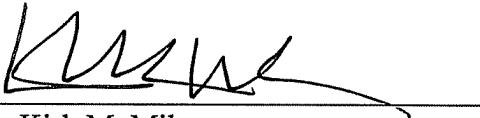
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skilled person would immediately recognize that the subscript "c" is not expressly defined, and, as stressed above, the skilled person would also immediately know that the subscript "c" designates a variable integer having regard to the disclosure as a whole and the definitions of related variables p, q, r, and s. Thus, the amendment to claim 14 and the specification does not add new matter; it merely puts into writing the unequivocal meaning of the subscript "c".

For all the foregoing reasons, Applicants submit that the pending claims are sufficiently clear and definite to meet the statutory requirements of 35 U.S.C. 112, second paragraph. Accordingly, entry of the amendments, reconsideration of the outstanding rejection, and allowance of claims 1-21 are respectfully requested.

Respectfully submitted,
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